

Application No. 10/542,131  
Amdt Dated: July 16, 2008  
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**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) A device comprising an array (1, 11, 21, 31a, 31b) of electronic field elements ( $F_{ij}$ ), said array consisting of rows ( $\Theta$ ) and columns ( $\Phi$ ) in the form of a matrix, wherein
  - a) each a first subset of field elements ( $F_{ij}$ ) is connected to precisely one access line ( $A_i, D_k$ ) among a set of several access lines, and
  - b) each the access line ( $A_i, D_k$ ) runs in zigzag fashion along a diagonals of the array (1, 11, 21, 31a, 31b) ~~from border column to border column~~ and at each turning point connects two field elements ( $F_{ij}, F_{(i+1)j}$ ) from a the same border column and two successive rows
2. (Currently amended) A device as claimed in claim 1, wherein characterized in that
  - c) each a second subset of field elements ( $F_{ij}$ ) is connected to precisely one secondary line ( $\Theta_k$ ) among a set of several secondary lines,
  - d) each the secondary line ( $D_k$ ) runs in zigzag fashion along a diagonals of the array (1, 11, 21, 31a, 31b) ~~from border column to border column~~ and at each turning point connects two field elements ( $F_{ij}, F_{(i+1)j}$ ) from the same border column and two successive rows, and
  - e) any given access line ( $A_i$ ) and any given secondary line ( $\Theta_k$ ) in each case together make contact with precisely one field element ( $F_{ij}$ ).
3. (Currently amended) A device as claimed in claim 1, wherein characterized in that the field elements ( $F_{ij}$ ) are sensors, in particular detector elements for X-radiation, signal-emitting elements, in particular pixels of a display, memory cells and/or actuators

4. (Currently amended) A device as claimed in claim 2, wherein characterized in that the access lines ( $A_i$ ) and the secondary lines ( $D_k$ ) serve to select the addressing of individual field elements ( $F_{ij}$ )

5. (Currently amended) A device as claimed in claim 2, wherein characterized in that the secondary lines ( $D_k$ ) serve to read data from field elements ( $F_{ij}$ ) which can be selected via an access line ( $A_i$ )

6. (Currently amended) A device as claimed in claim 2, wherein characterized in that the access lines ( $A_i$ ) and the secondary lines ( $D_k$ ) are in each case connected to a driver circuit (2, 12, 22, 32a, 32b; 3, 23, 33), where the driver circuits are provided at the same border or at opposite borders of the array (1, 11, 21, 31a, 31b).

7 (Currently amended) A device as claimed in claim 1, characterized in that it has a wherein said array comprises first and second portions of electronic field elements, further comprising a second set of access lines ( $A_i$ ), which access lines pass through said first portion of the array (31a) of field elements in a the column direction without making contact with the field elements comprising said first portion.

8 (Currently amended) A device as claimed in claim 1, wherein characterized in that the access lines ( $A_i, D_k$ ) run in a stepped manner along the diagonals of the array

9. (Currently amended) An electronic apparatus having an array of field elements ( $F_{ij}$ ) arranged in rows and columns in the form of a matrix, which apparatus is composed of devices (1, 11, 21, 31a, 31b) as claimed in claim 1

10 (Currently amended) A method of accessing electronic field elements ( $F_{ij}$ ) of an array (1, 11, 21, 31a, 31b) consisting of rows (i) and columns (j) in the form of a matrix, where access is in each case made simultaneously to all field elements ( $F_{ij}$ ) along a access lines which runs in zigzag fashion along diagonals of the array (1, 11, 21, 31a, 31b) from border column-to-border

column and at each turning point connects two field elements from a the same border column and two successive rows.

11. (New) The method of claim 10, where access is in each case made simultaneously to all field elements along secondary lines which run in zigzag fashion along diagonals of the array and at each turning point connects two field elements from the same border column and two successive rows

12. (New) The method of claim 10, wherein the field elements are sensors, in particular detector elements for X-radiation, signal-emitting elements, in particular pixels of a display, memory cells and/or actuators

13. (New) The method of claim 11, wherein the access lines and the secondary lines serve to select the addressing of individual field elements

14. (New) The method of claim 11, wherein the secondary lines serve to read data from field elements which can be selected via an access line

15. (New) The method of claim 11, wherein the access lines and the secondary lines are in each case connected to a driver circuit, where the driver circuits are provided at the same border or at opposite borders of the array

16. (New) The method of claim 10, wherein said array comprises first and second portions of electronic field elements, further comprising a second set of access lines, which access lines pass through said first portion of the array of field elements in a column direction without making contact with the field elements comprising said first portion

17. (New) The method of claim 10, wherein the access lines run in a stepped manner along the diagonals.

18. (New) A device comprising an array of electronic field elements, said array consisting of rows and columns in the form of a matrix comprising first and second portions of electronic field elements, wherein

a first subset of field elements is connected to precisely one access line among a set of several access lines,

the access line runs in zigzag fashion along a diagonal of the array and at each turning point connects two field elements from a same border column and two successive rows, and

a second set of access lines passing through the first portion of the array of field elements in a column direction without making contact with the field elements comprising the first portion.

19. (New) A device as claimed in claim 18, wherein

a second subset of field elements is connected to precisely one secondary line among a set of several secondary lines,

the secondary line runs in zigzag fashion along a diagonal of the array and at each turning point connects two field elements from the same border column and two successive rows, and

any given access line and any given secondary line in each case together make contact with precisely one field element.

20. (New) A device as claimed in claim 18, wherein the field elements are sensors, in particular detector elements for X-radiation, signal-emitting elements, in particular pixels of a display, memory cells and/or actuators.